In the Claims

Applicants have submitted a new complete claim set showing marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

Please amend pending claims 1, 8, 10, and 14 as indicated below.

Please add claims 21-36 as indicated below.

1. (Currently Amended) A method for analyzing an object comprising:

prescanning the object using a multiple energy X-ray device to determine information indicative of effective atomic number characteristics of the object; <u>and</u>

transmitting the information to a processor coupled to a computed tomography device<u>,</u> <u>wherein at least a portion of the multiple energy x-ray device is not common to the computed</u> <u>tomography device</u>; and

~~conducting scans of areas of interest of the object with the computed tomography device~~ ~~based upon the information.~~

2. Cancelled

3. (Original) The method of claim 1, further comprising:

performing a metal artifact correction based on the information.

4. (Original) The method of claim 3, wherein performing a metal artifact correction includes performing a beam hardening correction.

5. (Original) The method of claim 3, wherein performing a metal artifact correction includes performing a scatter correction.

6. (Original) The method of claim 1, further comprising:

using the information to determine density characteristics of the object.

7. (Original) The method of claim 1, further comprising:

using the information to determine a plane of the object to be scanned.

8. (Currently Amended) A method for analyzing an object comprising:

prescanning the object using a multiple energy X-ray device to determine prescan
information;

transmitting the prescan information to a processor coupled to a computed tomography
device;

performing a computed tomography scan ~~of a plane~~ of at least a portion of the object
based on the prescan information, wherein the computed tomography scan generates computed
tomography scan data and is performed using the computed tomography device; and

performing a metal artifact correction on the computed tomography scan data based on
the prescan information ~~if the plane intersects an area including or near a metal object~~.

9. (Original) The method of claim 8, wherein the processor is located within the
computed tomography device.

10. (Currently Amended) An apparatus for analyzing an object comprising:

a multiple energy prescanner that prescans the object; and

a computed tomography device that scans one or more areas of interest of the object
based on information indicative of effective atomic number characteristics of the object
transmitted from the multiple energy prescanner, wherein at least a portion of the multiple
energy prescanner is not common to the computed tomography device.

11. (Original) The apparatus of claim 10, wherein the multiple energy prescanner has a high energy X-ray source and a low energy X-ray source.

12. (Previously Presented) The apparatus of claim 10, further comprising a conveyor for transporting the object from the multiple energy prescanner to the computed tomography device.

13. (Original) The apparatus of claim 10, wherein the computed tomography device is a multiple energy computed tomography device.

14. (Currently Amended) An apparatus for analyzing an object comprising:
a multiple energy prescanner; and
a computed tomography device, wherein at least a portion of the multiple energy prescanner is not common to the computed tomography device;
wherein information indicative of at least one metal artifact is transmitted from the multiple energy prescanner to a processor coupled to the computed tomography device.

15. (Previously Presented) The method of claim 1, wherein transmitting the information comprises transmitting the information to a processor coupled to a computed tomography device, the computed tomography device comprising a portion of a unit that also comprises the multiple energy x-ray device.

16. (Previously Presented) The method of claim 1, wherein conducting scans comprises conducting scans of areas of interest of the object with the computed tomography device based upon the information to determine second information, the method further comprising:
transmitting the second information to a processor to determine whether to modify the information indicative of effective atomic number characteristics of the object.

17. (Previously Presented) The method of claim 16, wherein the second information is indicative of density characteristics of the object.

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18. (Previously Presented) The apparatus of claim 10, wherein the multiple energy prescanner and the computed tomography device are implemented as a single unit.

19. (Previously Presented) The apparatus of claim 10, wherein the information indicative of effective atomic number characteristics of the object is updated based on second information generated by the computed tomography device.

20. (Previously Presented) The apparatus of claim 19, wherein the second information is indicative of density characteristics of the object.

21. (New) The method of claim 1, wherein transmitting comprises transmitting the information to a processor coupled to a computed tomography device, wherein at least an x-ray source of the computed tomography device is not common to the multiple energy X-ray device.

22. (New) The method of claim 1, wherein transmitting comprises transmitting the information to a processor coupled to a computed tomography device, wherein at least an x-ray detector of the computed tomography device is not common to the multiple energy X-ray device.

23. (New) The method of claim 1, wherein prescanning comprises prescanning the object using a second computed tomography device.

24. (New) The method of claim 1, further comprising:
selecting an area of interest of the object based upon the information; and
conducting a scan of the area of interest of the object with the computed tomography device.

25. (New) The method of claim 8, wherein prescanning comprises prescanning the object using a second computed tomography device.

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26. (New) The apparatus of claim 10, wherein the multiple energy prescanner comprises a second computed tomography device.

27. (New) The apparatus of claim 14, wherein the multiple energy prescanner comprises a second computed tomography device.

28. (New) A method for analyzing an object comprising:

prescanning the object using a multiple energy X-ray device to determine information indicative of effective atomic number characteristics of the object;

transmitting, to another device that is separate from and coupled to the multiple energy X-ray device, a transmission that is based at least partially on the information; and

using the information received at the device to make at least one decision relating to further analyzing of the object, the at least one decision comprising a decision other than determining a portion of the object to be scanned by a computed tomography device.

29. (New) The method of claim 28, wherein the another device is a processor coupled to the computed tomography device, and wherein at least a portion of the multiple energy X-ray device is not common to the computed tomography device.

30. (New) The method of claim 28, further comprising:

using the information to select an area of interest of the object based upon the information; and

conducting a scan of the area of interest of the object with the computed tomography device to generate scan data.

31. (New) The method of claim 30, wherein using the information comprises using the information to determine whether to apply a metal artifact correction algorithm to the scan data.

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32. (New) The method of claim 28, wherein the transmission comprises the information.

33. (New) The method of claim 30, wherein using the information comprises using the information to determine a type of a metal positioned to create a metal artifact in the scan data.

34. (New) The method of claim 30, wherein using the information comprises using the information to determine a shape of a metal positioned to create a metal artifact in the scan data.

35. (New) The method of claim 28, wherein using the information comprises using the information to make a decision relating to threat detection.

36. (New) The method of claim 28, wherein the multiple energy x-ray device comprises a processor that is separate from the device.